

IN THE CLAIMS:

Please add new claims 7 to 44 as follows:

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--7. A bale press for loose material, comprising:

means defining a filling space for receiving loose material;

means defining a pressing channel in which loose material is baled;

a press ram movable through said filling space to push loose material into said pressing channel, said press ram including channels and outlet slots in a front surface of said press ram leading to said channels;

a plurality of knotting devices arranged at an inlet of said pressing channel for tying loose material in said pressing channel to form a bale;

supply means for supplying tying material to said knotting devices, each of said knotting devices being arranged to knot first and second strands of the tying material encircling the bale together and cut the first and second strands after the knot; and

supply arms each carrying a respective one of the first strands and movable in a respective one of said channels of said press ram to thereby carry the first strand from one side of the bale to an opposite side of the bale, each of said channels being formed to accommodate movement of a respective one of said supply arms therethrough.

8. The bale press of claim 7, wherein said knotting devices are arranged next to one another on a common side of said pressing channel.

9. The bale press of claim 7, wherein said press ram includes driving means for moving said press ram through said filling space, said driving means being arranged to be stationary during movement of said supply arms through said channels in said press ram.

10. The bale press of claim 7, wherein said press ram includes a pressure medium-actuated driving mechanism for moving said press ram through said filling space.

11. The bale press of claim 7, further comprising driving means for moving each of said supply arms.

12. The bale press of claim 7, further comprising a pressure medium-actuated driving mechanism for moving each of said supply arms.

13. The bale press of claim 7, wherein each of said supply arms includes a guide through which a respective first strand passes.

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14. The bale press of claim 7, wherein said knotting devices are arranged on a first side of said pressing channel and said supply arms are arranged on a second, opposite side of said pressing channel, each of said supply arms being arranged to carry the respective first strand from the first side of said pressing channel through the respective one of said channels in said press ram to said second side of said pressing channel into engagement with a respective one of the second strands.

15. The bale press of claim 14, further comprising guide means arranged on said second side of said pressing channel for guiding the tying material to said knotting devices to form the second strand.

16. The bale press of claim 7, wherein said knotting devices are arranged to retain free ends of the tying material after the first and second strands have been cut after formation of the knot.

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17. The bale press of claim 16, wherein said knotting devices are arranged to form an additional knot from the free ends of the tying material.

18. The bale press of claim 7, wherein said supply means comprise rolls of water-soluble tying material.

19. The bale press of claim 7, wherein said supply arms have a sickle shape.

20. The bale press of claim 7, further comprising a lever connected to each of said supply arms and pivotable about an axis to thereby enable a rotational movement of said supply arm about said axis to be obtained during which said supply arm moves through the respective one of said channels in said press ram.

21. The bale press of claim 20, wherein said lever has first arm extending from said axis to a first end of said lever connected to said supply arm and a second arm extending from said axis to a second end of said lever, further comprising a driving mechanism connected to said second end of said lever for pivoting said lever about said axis.

22. The bale press of claim 7, wherein said outlet slots have a width substantially corresponding to a width of said supply arms.

23. The bale press of claim 7, wherein the tying material is a binding material and said supply means comprise rolls of single-sided binding material, said knotting devices being arranged to retain free ends of said binding material after the first and second strands have been cut after formation of the knot.

24. The bale press of claim 7, wherein said supply means comprise rolls of tying material arranged on each side of said pressing channel.

25. A bale press for loose material, comprising:

means defining a filling space for receiving loose material;

means defining a pressing channel in which loose material is baled;

a press ram movable through said filling space to push loose material into said pressing channel, said press ram including channels and outlet slots in a front surface of said press ram leading to said channels;

knotting means for tying loose material in said pressing channel to form a bale;

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supply means for supplying tying material to said knotting means, each of said knotting means being arranged to knot first and second strands of the tying material encircling the bale together and cut the first and second strands after the knot; and

supply arms each carrying a respective one of the first strands and movable in a respective one of said channels in said press ram to thereby carry the first strand from one side of the bale to an opposite side of the bale, each of said channels being formed to accommodate movement of a respective one of said supply arms therethrough.

26. The bale press of claim 25, wherein said knotting means are arranged next to one another on a common side of said pressing channel.

27. The bale press of claim 25, wherein said press ram includes driving means for moving said press ram through said filling space, said driving means being arranged to be stationary during movement of said supply arms through said channels in said press ram.

28. The bale press of claim 25, further comprising driving means for moving each of said supply arms.

29. The bale press of claim 25, wherein each of said supply arms includes guide means through which a respective first strand passes.

30. The bale press of claim 25, wherein said knotting means are arranged on a first side of said pressing channel and said supply arms are arranged on a second, opposite side of said pressing channel, each of said supply arms being arranged to carry the respective first strand from the first side of said pressing

channel through the respective one of said channels in said press ram to said second side of said pressing channel into engagement with a respective one of the second strands.

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31. The bale press of claim 30, further comprising guide means arranged on said second side of said pressing channel for guiding the tying material to said knotting means to form the second strand.

32. The bale press of claim 25, wherein said knotting means are arranged to hold free ends of the tying material after the first and second strands have been cut after formation of the knot.

33. The bale press of claim 32, wherein said knotting means are arranged to form an additional knot from the free ends of the tying material.

34. The bale press of claim 25, wherein said supply means comprise rolls of water-soluble tying material.

35. The bale press of claim 25, wherein said supply arms have a sickle shape.

36. The bale press of claim 25, further comprising rotation means for imparting a rotational movement to said supply arms.

37. The bale press of claim 36, wherein said rotation means comprise a lever connected to each of said supply arms and pivotable about an axis to thereby enable a rotational movement of said supply arm about said axis to be obtained during which said supply arm moves through the respective one of said channels in said press ram.

38. The bale press of claim 37, wherein said lever has first arm extending from said axis to a first end of said lever connected to said supply arm and a second arm extending from said axis to a second end of said lever, further comprising a driving mechanism connected to said second end of said lever for pivoting said lever about said axis.

39. The bale press of claim 25, wherein the tying material is a binding material and said supply means comprise rolls of single-sided binding material, said knotting means being arranged to retain free ends of said binding material after the first and second strands have been cut after formation of the knot.

40. The bale press of claim 25, wherein said supply means comprise rolls of tying material arranged on each side of said pressing channel.

41. A method for baling loose material, comprising the steps of:

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guiding a first strand of tying material through a supply arm on a first side of a bale press;

guiding a second strand of tying material along a second side of the bale press;

moving the supply arm through a channel in a press ram to bring the first strand to the second side of the bale press;

knotting the first and second strands on the second side of the bale press to form a first knot and moving the supply arm back through the channel;

placing loose material into a filling space of the bale press;

moving the press ram to force the loose material from the filling space into a pressing channel;

repeating the steps of placing the loose material in the filling space and moving the press ram until a desired compactness of the loose material in the pressing channel is obtained and then stopping movement of the press ram;

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ant
moving the supply arm through the channel in the press ram to bring the first strand to the second side of the bale press;

knotting the first and second strands on the second side of the bale press to form a second knot around a completed bale;

moving the supply arm back to the first side of the bale press;

cutting the tying material after the second knot and forming another knot; and

repeating the steps of placing loose material into the filling space, moving the press ram, moving the supply arm, knotting the first and second strands and cutting the tying material to form additional bales.

42. The method of claim 41, further comprising the step of maintaining the press ram in a stationary position during movement of the supply arm through the channel in the press ram.

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43. The method of claim 41, further comprising the step of forming an outlet slot in a front surface of the press ram in communication with the channel in the press ram.

44. The method of claim 41, further comprising the step of adapting the channel in the press ram to the movement of the supply arm such that the supply arm sweeps the channel during movement through the channel and removes loose material from the channel.--